We claim:

1. Novel crystalline form VI of 1-benzyl-4-[(5,6-dimethoxy-1-indanon)-2-yl]methyl piperidine hydrochloride (Donepezil hydrochloride).

2. The novel crystalline form VI of Donepezil hydrochloride of claim 1 having X-ray powder diffraction pattern with peaks (according to Figure-1) around 9.742, 11.528, 12.737, 14.220, 14.402, 14.645, 16.176, 16.649, 18.168, 19.303, 20.543, 21.032, 21.491, 22.653, 23.128, 23.837, 24.138, 24.791, 25.152, 25.969, 26.748, 27.272, 27.569, 28.782, 29.937, 30.762, 31.358, 31.956, 32.667, 33.803, 36.272 two-theta degrees.

3. The novel crystalline form VI of Donepezil hydrochloride according to claim 1 having an identified characteristic Infrared bands (according to Figure-2) around 558.78, 588.84, 607.87, 649.42, 706.31, 749.77, 764.95, 783.81, 810.93, 861.44, 897.21, 927.67, 950.37, 982.24, 1035.44, 1073.41, 1102.41, 1120.94, 1223.44, 1266.49, 1313.99, 1367.83, 1424, 1456.23, 1501.51, 1589.30, 1697.55, 2512.14, 2847.03, 2932.79, 3450.67 cm^{-1}.

4. The novel crystalline form VI of Donepezil hydrochloride according to claim 1 having a thermogravimetric analysis thermogram substantially in accordance with Figure (3).

5. The novel crystalline form VI of Donepezil hydrochloride according to claim 1 having a Differential Scanning Calorimetry thermogram (according to Figure-4) which exhibits a significant endo peak around 229.85°C.

6. A process for preparing the novel, crystalline form (VI) of Donepezil hydrochloride, which comprises;

a. dissolution of the Donepezil free base (which is prepared according to example 3 of our earlier patent application having the reg No.555/MAS/02 which is under process at IPO office India) in a suitable alcoholic solvent at 60 to 65°C, wherein the said alcoholic solvent may be selected from the group comprising of methanol, ethanol, propanol, and butanol, preferably the said solvent is methanol;

b. reacting the solution of step (a) with HCl source at 25 to 35°C to afford the Donepezil hydrochloride of crystalline form-VI, where the HCl may be HCl gas purged in ethereal solvents such as isopropyl ether HCl, ethylether HCl, methy tertiary butyl ether HCl, preferably the HCl source may be HCl gas dissolved in isopropyl ether, more preferably stoichiometric amount of HCl gas dissolved in isoprpylether;

c. diluting the reaction mass of step (b) with ethereal solvent, such as diethyl ether, methyl tert-butyl ether, diisopropyl ether; preferably diisopropyl ether;

d. stirring the reaction mass of step (c) at 25 to 35°C for a period of 0.5 to 10 hours preferably for 2 to 3 hours;

e. filtration of the separated solid from step (d) by conventional methods;

f. drying the resulted crystalline solid from step (e) at 50-55 ^{O}C for a period of 5-8 hours under reduced pressure to afford the novel crystalline form-VI of Donepezil hydrochloride;

7. Novel crystalline form VI of 1-benzyl-4-[(5,6-dimethoxy-1-indanon)-2-yl]methylpiperidine hydrochloride (Donepezil hydrochloride) and process for the preparation thereof which is herein described and exemplified.